



Assured Steel Certification

Construction Steel Sustainability and Environmental Product Declaration (EPD) systems

15 Nov 2022

14 - 18
NOVEMBER



Sunway Pyramid
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Malaysia



2022 SEAIISI

STEEL MEGA
EVENT & EXPO

Technology • Sustainability • Construction

Contents

- Activities and Organization
- Construction Products Sustainability
- Environmental Product Declaration (EPD) systems



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CARES

CARES - Assured Steel Certification

- CARES certification provides confidence to the users, purchasers and specifiers of steels through a regime of third party regulation, testing and inspection
- Independent, not-for-profit certification body, established in 1983
- Provide accredited certification schemes primarily for constructional steels

Certification Services

- Product Certification
- Management system certification
- Technical approvals
- Post Tensioning
- UKCA/UKNI
- Sustainable Constructional Steels Scheme
- BES 6001 Responsible Sourcing Certification

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CARES -Assured Services Offered

Product Conformity Certification

- Reinforcing steel – BS 4449, BS 6744, SS560, CS2, ISO6935 plus others (i.e. ASTM)
- Reinforcing steel fabrication – BS 8666 (cut/bend), BS 4483 (fabric)
- Pre-stressing wire and strand – BS 5896 plus others
- Welding of Reinforcing steel – BS8548 / BS EN ISO 17660
- Approval of PT Installation for Highway Structures
- Approval of PT Installation for non - Highway Structures
- **Singapore Specialist Builders – In-Situ Post Tensioning Works**
- **Alternative Structural Steel to BC1**

Management Systems Certification

- Quality Management systems to ISO 9001:2015
- Environmental Management systems to ISO 14001:2015
- Occupational Health and Safety Management systems to ISO 45001:2018

UKCA/UKNI

- Structural steel sections to EN 10025:2004
- Constructional flat steel to EN 10025:2004
- Stainless Steel to EN10088-5:2009
- Pre-cast Concrete to various harmonized standards

Sustainability Certifications

- Sustainable Construction Steel (SCS) Certification (Sector certification scheme UKAS accredited to BS 8902)
- BES 6001 Responsible Sourcing Certification
- ResponsibleSteel Certification
- Environmental Product Declaration to EN 15804 (3rd party verified EPD Report)
- Product carbon foot-printing (CF Report)

Technical approval

- European Technical Approval of PT kit to EAD 160004
- Coupler approval (*TA1-A to UK Highways Design Manual, TA1-B to BS8597 and TA1-C to Sellafield Nuclear Specification*)
- Reinforcement Continuity Systems to CARES TA2
- Stud shear Reinforcing Systems to CARES TA7
- Pile Cage Connection Systems to CARES TA15

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CARES Accreditation Standards

BS EN ISO/IEC 17065:2012

BS 8902:2009

BS EN ISO/IEC 17021:2015



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Major global projects



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Major global projects and recognitions



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Drivers for SUSTAINABILITY

- New and developed sustainability legislation and standards
- Broadened scope of issues requiring systematic management and raised performance expectations
- International agreements such as the Paris Accord where 195 nation states agreed to keep global temperature rise this century well below 2 degrees Celsius above pre-industrial levels
- Breeam, Leed, Green Star, Al Sa'fat, Estidama Pearl, Ceequal and other building rating frameworks
- Balanced Scorecards, responsible sourcing procurement criteria in public and private sectors

The UK Modern Slavery Act, introduced in March 2016, requires any business with a worldwide turnover above £36m to publically report on its efforts to eradicate slavery and human trafficking in its entire value chain



Construction SUSTAINABILITY

- The concept of sustainability within construction has become more sophisticated
- It now encompasses; labour rights, community considerations, business ethics as well as low carbon, environmentally improved buildings and infrastructure
- Expectations of effective management and performance run across the entire construction value chain from raw material sourcing, through product manufacture and transport to the construction site, use and end of life

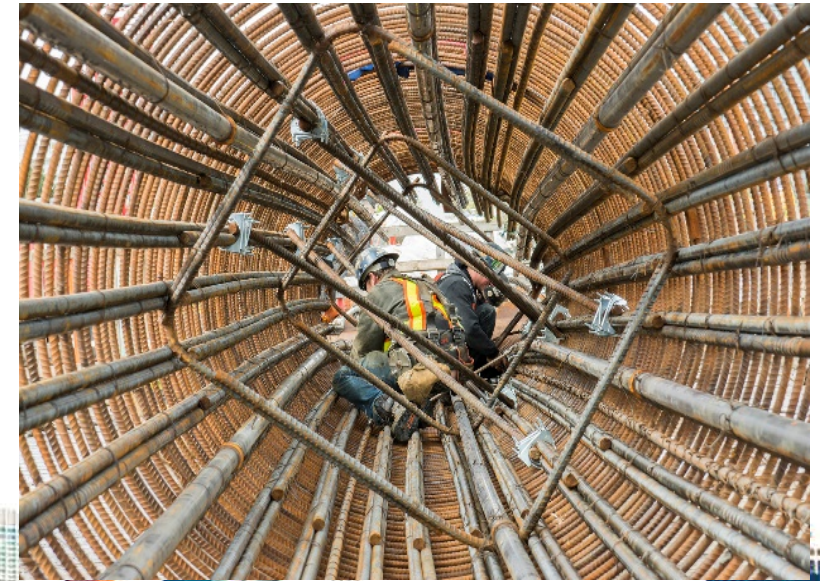
Third-Party Certification Bodies play a key role in independent data validation, auditing and reporting on behalf of construction companies



Construction SUSTAINABILITY

- Increasing demand for accurate, accessible and timely information on the environmental, social and ethical impacts construction materials
- Major infrastructure and construction projects are increasingly incorporating sustainability into procurement frameworks
- Provides confidence to the designers, specifiers and owners of buildings and infrastructure

To achieve the objectives of lower carbon usage, efficient use of natural resources and confidence that labour and welfare standards are maintained in the supply chain, there is a need for relevant, reliable and trusted data



The CARES Sustainable Constructional Steel (SCS) Scheme

- Set up in 2012, the scheme aims to deliver improved sustainability and resilience in the construction sector
- Applicable to primary producers of steel and fabricators who process that steel into building products that are used in a construction system
- Based on the principles of inclusivity, integrity, stewardship and transparency
- Stakeholder engagement is a key basis of the scheme and feeds into periodic review

Product scope covers reinforcing carbon steel, reinforcing stainless steel, other structural steels and hot rolled flat steel



The CARES Sustainable Constructional Steel (SCS) Scheme

Accredited to BS 8902:2009 (Responsible sourcing sector certification schemes for construction products) by UKAS



Company-specific verified Environmental Product Declarations (EPD's), a requirement of the scheme, are accepted in the USGBC's LEED certification



Recognised by BREEAM Int' New Construction (2016) and BREEAM UK (2018) New Construction



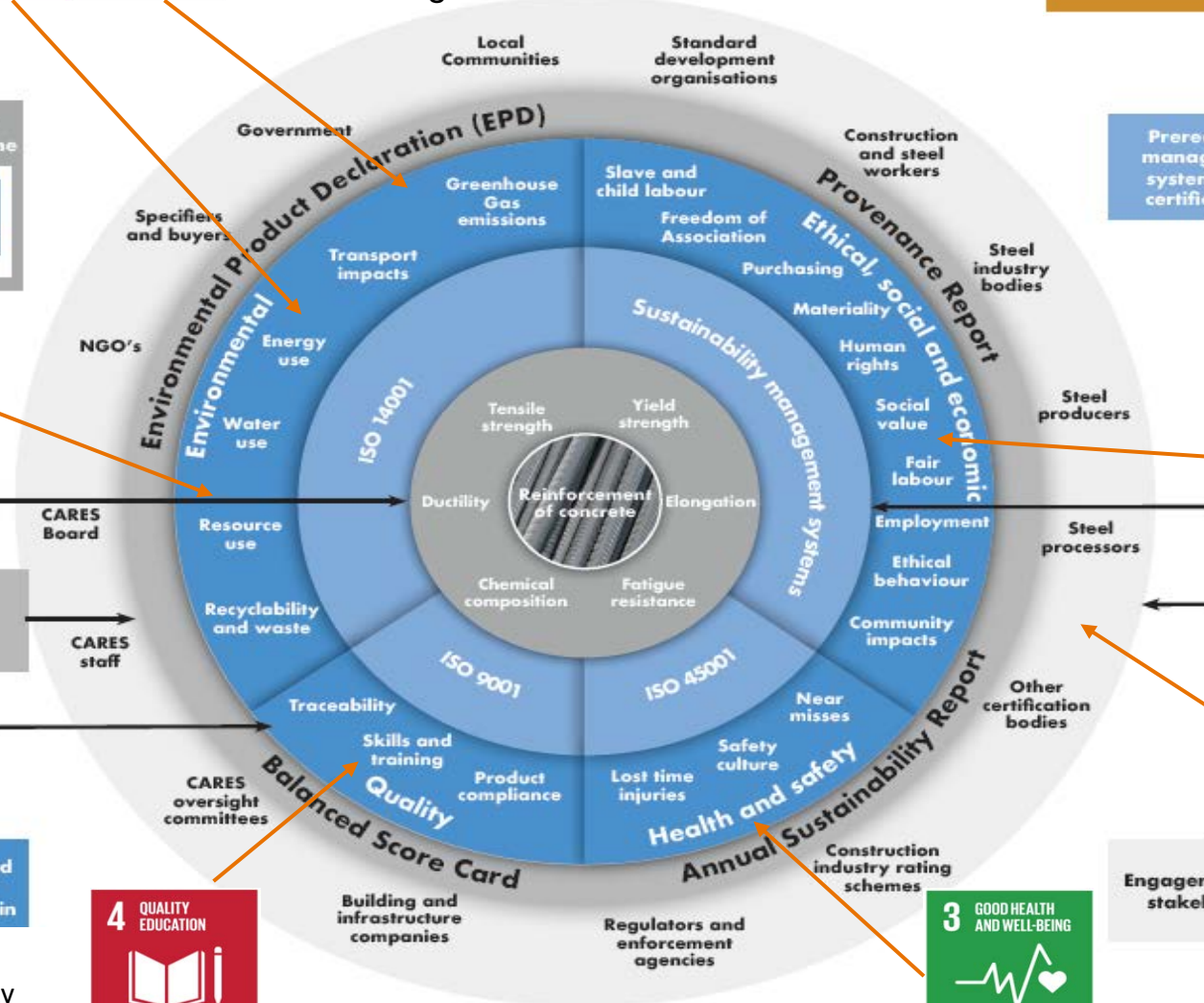
Recognition within other building rating frameworks



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Extended Product Concept Sustainable Construction Steels (SCS) scheme requirements And alignment to the SDG's



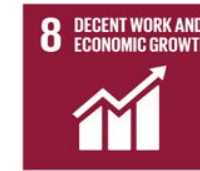
Energy monitoring, % renewable energy usage and publication of the Global Warming Potential of the products are all scheme requirements



The scheme requires continual improvement during production and processing and the development of performance linked to transition pathways informed by science. It's EPD's and other reporting requirements enhance transparency and support responsible production and consumption



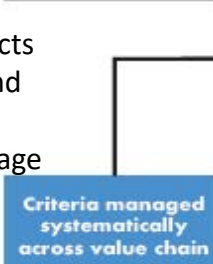
Monitoring water use, raw materials inputs, emissions, ecotoxicity and biodiversity are scheme requirements



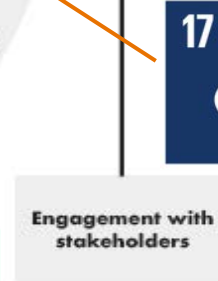
Policies, management processes and due diligence for human and labour rights, including non-discrimination are prerequisites of the scheme



The scheme is designed to reduce the negative impacts of buildings and infrastructure and to encourage and track innovation



The scheme requires competence in sustainability and credits training of suppliers



Effective engagement is required and tracked by the scheme with collaborative solutions encouraged, with suppliers, customers and others

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Key features of the CARES sustainability scheme

The CARES Sustainability scheme - Scope

The certifications covered in the CARES Sustainability scheme:

- ISO 14001:2015 certification scheme
- ISO 45001:2018 (OHSAS 18001:2007 until its withdrawal in 31st March 2021)
- CARES SCS '*Sustainable Constructional Steel*' scheme plus EPD Reporting
- BES 6001 'Responsible sourcing of constructional materials' scheme

CARES has been running the scheme for nearly more than 10 years and has approved many constructional steel producers and processors in UK, Ireland, Germany, France, Spain, Portugal, Turkey, Ukraine, UAE, Qatar, Oman etc.

CARES SCS certification is sector certification scheme and specifically developed for the constructional steel supply chain.

CARES SCS is UKAS accredited to BS 8902:2009 'Responsible sourcing sector certification schemes for construction products – Specification'.

In total, 46 Certified Suppliers and Locations

Locations of CARES sustainability scheme-approved suppliers

CARES has global reach. The SCS Scheme is internationally recognised as the preferred certification system for sustainable constructional steel. CARES-approved suppliers benefit from the wide acceptance of CARES-approved steel by green building rating systems around the world. The map shows CARES-approved suppliers, those which have started to achieve higher performance levels under the Rosette Rating System and their locations.



Rating: | | | PASS

Belarus

- Open Joint-Stock Company Byelorussian Steel Works-management company of Byelorussian Metallurgical Company holding (Zhibin, Belarus)

France

- ALPA, Gargenville

Germany

- ArcelorMittal Hamburg GmbH, Hamburg

Netherlands

- Van Merksteijn B.V., Almelo

Ireland

- Brazil & Co. (Steel) Ltd. T/A Fairyhouse Steel, Ratoath
- Midland Steel Reinforcement Supplies, Mountmellick, Co Laos

Portugal

- SN Maia - Siderurgia Nacional, S.A., San Pedro Fins, Maia
- SN Setxal, Siderurgia Nacional, S.A., Setxal

Qatar

- Qatar Reinforcement Company, W.L.L., Doha
- Qatar Steel Company(QSC), Mesateed

Spain

- Megasa Siderurgica SL, Naron

Turkey

- Bastug Metalurji Sanayi A.S., Osmantye
- Colakoglu Metalurji A.S., Gebze
- Diler Iron and Steel Co Inc., Gebze
- Ektinciler Iron & Steelworks Inc., Iskenderun
- HABAS A.S., Izmir
- ICIDAS Celik Enerji Tersane Ve Ulastim Sanayi A.S., Biga
- Izmir Demir Celik Sanayi A.S., Izmir
- Kaptan Demir Celik Endustrisi Ve Ticaret AS
- Kroman Celik Sanayi A.S., Gebze
- Yazici Iron & Steel Co Inc., Iskenderun
- Yesilyurt Demir Celik, Samsun

United Arab Emirates

- Conares Metal Supply Ltd, Rebar Mill, Dubai
- Emirates Steel Industries, ICAD I, Mussaffah, Abu Dhabi
- Hamryah Steel FZC [Sharjah, United Arab Emirates]
- Union Iron & Steel Company L.L.C Mussaffah, Abu Dhabi

United Kingdom

- ArcelorMittal Kent Wire Limited, Chatham
- ArcelorMittal Kent Wire Limited T/A AMCS, Chatham
- Capital Reinforcing Ltd, Bromborough
- F Brazil Reinforcements Limited, Carvey Island
- Hy-Ten Reinforcement Co Ltd, Chatham
- Lemon Groundwork Solutions Ltd, Wickford
- Midland Steel Reinforcement Supplies, London Thamesport
- Outokumpu Stainless Ltd. T/A ASR Rod Mill and Sheffield Stainless Bar, Long Products, Sheffield
- Outokumpu Stainless Ltd. T/A Sheffield Stainless Bar, Long Products, Sheffield
- Roe Bros & Co Ltd, Peterborough
- Thames Reinforcements Ltd, Sheerness

Ukraine

- ArcelorMittal Kryty Rih PJSC., Kryty Rih

Oman

- Jindal Shadeed Iron and Steel LLC Sohar
- Sohar Steel, Sohar

Key

- Reinforcing Steel Producers (Electric Arc Furnace)
- Reinforcing Steel Producer (Integrated Iron and Steel Plant)
- Feedstock CoI Producer
- Structural Steel Producers
- Stainless Steel Reinforcing Bar Processor
- Flat Steel Producers
- Stainless Steel Reinforcing Bar Producers and Processors
- Reinforcing Steel Processors (Fabricators)

CERTIFICATE OF APPROVAL

Sustainable Constructional Steel (SCS) scheme certification Rating **PASS**

This is to certify that Emirates Steel Industries Co. PJSC at its establishment or PO Box 9022, Mussaffah, Abu Dhabi, United Arab Emirates has been approved by the Authority to the CARES sustainable constructional steel scheme for the following operational assessment schedule using the processes and procedures registered with the Authority. The scheme complies with BS 8902:2009.

CARES Sustainability Scheme Appendix 01
Scope of certification:
 Production of continuously cast steel billets
 Production of hot rolled steel bar and coil for the reinforcement of concrete

This certificate remains the property of the Authority and is issued subject to the Regulations of the Authority. This certificate is uncontrolled when printed. To check the validity of this certificate please scan the above QR Code with the CARES Cloud App or contact us on +44 1732 450000.

CERTIFICATE NUMBER	ISSUE APPROVAL	ISSUE DATE	EXPIRY DATE
1268	January 2011	30 July 2020	30 July 2023

NOTED FOR DISCREPANCY AGAINST FOR REVISION(S) (YES)

the Body
 Issued by:
 the Body
 Chartered Engineer

As per BS 8902:2009, this scheme is controlled by means of a certificate issued by the Authority and is subject to the Regulations of the Authority. This certificate is uncontrolled when printed. To check the validity of this certificate please scan the above QR Code with the CARES Cloud App or contact us on +44 1732 450000.

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CARES Sustainability Scheme Appendix 05
Scope of certification:
 Production of structural steels

This certificate remains the property of the Authority and is issued subject to the Regulations of the Authority. This certificate is uncontrolled when printed. To check the validity of this certificate please scan the above QR Code with the CARES Cloud App or contact us on +44 1732 450000.

CERTIFICATE NUMBER	ISSUE APPROVAL	ISSUE DATE	EXPIRY DATE
1338	December 2012	30 July 2020	30 July 2023

NOTED FOR DISCREPANCY AGAINST FOR REVISION(S) (YES)

the Body
 Issued by:
 the Body
 Chartered Engineer

As per BS 8902:2009, this scheme is controlled by means of a certificate issued by the Authority and is subject to the Regulations of the Authority. This certificate is uncontrolled when printed. To check the validity of this certificate please scan the above QR Code with the CARES Cloud App or contact us on +44 1732 450000.



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CARES SCS scheme - Assessment principles

- **Mandatory requirements (CARES product conformity/FPC + ISO 9001 + ISO 14001 + ISO 45001)**
 - **CARES Rosette Rating System (voluntary credits)**
- Section 2 Sustainability Management - **29 mandatory** + 9 credits
 Section 3 Environmental Aspects - **16 mandatory** + 16 credits
 Section 4 Social Aspects - **18 mandatory** + 13 credits
 Section 5 Economic Aspects - **7 mandatory** + 8 credits

QR Code enables confirmation of certification and is one part of CARES digitisation programme



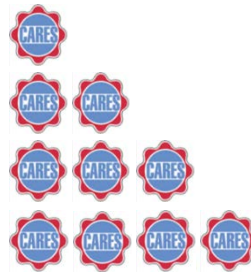
Certification Classes

Pass

- 1 Rosette
- 2 Rosettes
- 3 Rosettes
- 4 Rosettes



Mandatory



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Balanced Scorecard - BSC and mandatory thresholds

Mandatory performance requirements including minimum thresholds for the most material criteria:

- GHG emissions shall be monitored, reported and under the defined performance thresholds
- LTIFR data shall be published and publicly accessible
- (for producers) at least 60% of suppliers by mass shall be evaluated for their ethical, social, environmental and economic impacts
- 3.b (for processors) shall purchase from SCS certified producers or from organisations possessing a valid sustainability certificate acceptable to CARES



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APPENDIX TO CARES CERTIFICATE NO. 1749
THAMES REINFORCEMENTS LTD.



Sustainable Constructional Steel (SCS) scheme v09 - Balanced Scorecard

Rating
PASS

Aspect	Indicator	Unit	Score
Product Quality	Constructional Steel products supplied where each batch (cast/heat) is traceable to a specific order	%	100
	Site has valid product conformity certification acceptable to CARES	YES/NO	YES
	Site covered by valid ISO9001 Quality Management System certification acceptable to CARES	YES/NO	YES
	Product placed on market deemed to comply with the relevant product standard(s)	%	100
Responsible Sourcing	For Producers: % of suppliers evaluated for sustainability impact during supplier selection and evaluation process	% suppliers by mass of raw materials	100
	For Processors: % of feedstock suppliers certified to CARES SCS scheme or equivalent acceptable to CARES		
Environment	Global Warming Potential (Data from EPD to EN 15804 or equivalent for life-cycle stages A1-A3)	kgCO2e per tonne of steel produced	609.5
	Renewable energy use	% of total production energy used	24.6
	Site covered by valid ISO14001 Environmental Management System certification	YES/NO	YES
	For Producers: Independently verified Environmental Product Declaration (EPD) report. For Processors: Carbon Footprint report to ISO 14064:1 or EN 15804	YES/NO	NO
	Recycled content: Pre and Post consumer steel scrap in approved product	% by mass	96.8
Social	Environmental and social complaints that resulted from a breach of legislation recognised by an external regulator	Total number	NONE
	Lost time injury frequency rate (LTIFR)	Lost time injuries per million hours worked	0
	Site covered by a valid ISO 45001 (or OHSAS 18001 until 30th September 2021) Occupational Health and Safety Management system certificate	YES/NO	YES
	Freedom of Association	YES/NO	YES
	Skills and Training - Apprenticeships per year	Total number	1
	Skills and Training - Training hours per worker per year	hours/year per worker	28.5
	Human rights due diligence completed	YES/NO	YES
Economic	Contribution to the economy through local employment and procurement	YES/NO	YES
	Capable of producing Social Value data at postcode level to meet client requests	YES/NO	NO
Local Culture	Promotion and protection of culture, heritage and local languages and encouragement to participate in the arts, sports and recreation	YES/NO	NO

CERTIFICATE NUMBER	FIRST APPROVAL	ISSUE DATE	EXPIRY DATE
1749	February 2021	21 February 2021	21 February 2024

SIGNED FOR UK CERTIFICATION AUTHORITY FOR REINFORCING STEELS

Lee Brinkley
Lee Brinkley,
Chief Executive Officer

The use of the Accreditation Mark indicates accreditation in respect of those activities covered by the accreditation certificate number 002.
UK Certification Authority for Reinforcing Steels, Pembroke House, 21 Pembroke Road, Severnside, Kert, TN13 1ER, UK.
A Company Limited by Guarantee. Registered in England No. 1762468.
Cert. No. AIC112010 46702 1778



How authoritative is CARES data?

- Certification process: Application review; Stage 1 and Stage 2 detailed on-site audits each year
- Chances of data errors are reduced when compared to sample approach/less frequent audit cycle
- EPD data, which is updated once every 3 years, is subject to an additional verification stage by a third party – BRE
- Ongoing engagement between CARES auditors and the organisations supports a learning culture
- Annual SCS Scheme sector report

bre

Information modules covered

Product	Construction	Use stage										End-of-life	Benefits and loads beyond the system boundary				
		Related to the building fabric					Related to the building										
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
Raw materials supply																	
Transport																	
Manufacturing																	
Transport to site																	
Construction - installation																	
Use																	
Maintenance																	
Repair																	
Replacement																	
Refurbishment																	
Operational energy use																	
Operational water use																	
Decommission/demolition																	
Transport																	
Waste processing																	
Disposal																	

Note: Ticks indicate the Information Modules declared.

Manufacturing site(s)

In this EPD are representative of manufacture of reinforced steel bars by

bre

Statement of Verification

BREG EN EPD No.: 000125
ECO EPD Ref. No. 00000454

Issue 02

This is to verify that the

Environmental Product Declaration
provided by:
UK CARES

is in accordance with the requirements of:
EN 15804:2012+A1:2013
And
BRE Global Scheme Document SD207

This declaration is for:
Carbon Steel Reinforcing Bar (secondary production route –scrap), Sector Average

Company Address

Pembroke House
21 Pembroke Road
Sevenoaks
Kent TN13 1XR



Emma Baker
Signed for BRE Global Ltd Operator
16 April 2020
Date of this Issue

Emma Baker
Signed for BRE Global Ltd Operator
15 April 2023
Expiry Date



This Statement of Verification is issued subject to terms and conditions (for details visit www.breglobal.com/terms)
To check the validity of this statement of verification please visit www.breglobal.com/epd/ or contact us.
BRE Global Ltd, Garsden, Watford WD25 9XK.
T: +44 (0)1937 521 811 F: +44 (0)1937 694009 E: care@breglobal.com



Product:

Carbon steel reinforcing bars ("rebar") (according to the product standards listed in the references section of the product declaration) produced via the blast furnace/basic oxygen furnace route (BF/BOF), followed by hot rolling to provide tensile strength in reinforced concrete building elements.

Property	Value, Unit
Carbon footprint (BF/BOF)	BF/BOF
Carbon footprint (2005 (BSI, 2016))	7850 kg/m ³
Carbon footprint (2005 (BSI, 2016))	≤ 0.50 Ceq.
Tensile strength (449:2005 (BSI, 2016))	≥ 500 N/mm ²
Tensile strength (449:2005 (BSI, 2016))	≥ 540 N/mm ²
Weldability (ve rib area) (to BS4449:2005 (BSI, 2016))	Bar size 6-12 mm, min 0.040 Bar size >12 mm, min 0.056
Weldability (449:2005 (BSI, 2016))	≥ 5 %
Weldability (2005 (BSI, 2016))	Pass

Date of Issue: 12 January 2018
Page 3 of 21
Expiry Date 09 November 2020
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Environmental product declaration (EPD to EN 15804)

Carbon Reinforcing Steel, Structural Steel and Stainless Reinforcing Steel

The type of EPD developed by CARES and thinkstep for Carbon Reinforcing Steel, Structural Steel and Stainless Reinforcing Steel cover all life cycle stages namely “Product Stage”, “Construction Process Stage”, “Use Stage”, “End-of-Life Stage” and “Benefits and Loads beyond the System Boundary”. This EPD is said to be achieving the max available credits through “cradle-to-gate-with-options” mechanism (Modules A1 to D).

Building Assessment Information (x = included in Life Cycle Assessment)																
Product Stage			Construction Process Stage		Use Stage							End-of-Life Stage				Benefits and loads beyond the system boundary
Raw material supply	Transport	Manufacturing	Transport to building site	Installation into building	Use / application	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction / demolition	Transport	Waste processing	Disposal	Reuse, recovery or recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

CARES Company-Specific Verified EPD

Secondary Production Route - Scrap:

Manufacturer	Product Recycle Content (%)	GWP (kg CO2 eq)/tonne carbon steel reinforcing bars manufactured
		(A1-A3 life cycle stages)
Scrap based 13 manufacturers (Sector Average)	96	760
Yesilyurt Demir Celik	96.6	812
Yazici Demir Celik, Turkey	98.6	672
ICDAS, Turkey	94.5	890
Diler Demir Celik, Turkey	97.2	876
Izmir Demir Celik, Turkey	98.9	753
Kroman Celik Sanayi, Turkey	90.7	978
Ekinciler Iron & Steel, Turkey	98.0	824
Bastug Metalurji, Turkey	98.4	765
Habas, Turkey	97.9	759
Conares Metal Supply, Dubai	25.2	964



CARES Company-Specific Verified EPD

Direct Reduced Iron Production Route:

Manufacturer	Product Recycle Content (%)	GWP (kg CO2 eq)/tonne carbon steel reinforcing bars manufactured
		(A1-A3 life cycle stages)
Qatar Steel, Qatar	16.0	2560
Emirates Steel, Abu Dhabi	8.6	2130
Jindal Shadeed Iron & Steel, Oman	6.6	2280

Blast Furnace / Basic Oxygen Furnace Route (BF/BOF)

Manufacturer	Product Recycle Content (%)	GWP (kg CO2 eq)/tonne carbon steel reinforcing bars manufactured
		(A1-A3 life cycle stages)
ArcelorMittal Kryvyi Rih, Ukraine	14.4 – 20.1	2580

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Carbon cost



After Brexit process, the UK replaced the EU ETS (Emissions Trading System) with the UK ETS. The UK gov is hearing / reviewing stakeholder views to make necessary changes in line with the Government's decarbonisation ambitions.

The price of UK ETS allowances has risen significantly since start of the scheme in May 2021 at £47/t to current levels of £93/t.

CARES Approval in project specifications

JTC, Singapore

STEEL REINFORCEMENT

Steel reinforcement shall comply with SS 560, SS 561 , BS EN 10080 and/or BS4449

All reinforcement bars shall be obtained from firms holding valid CARES (or equivalent schemes) product conformity and sustainability scheme certificates of approval for the production and supply of steel reinforcement.

1. H denotes high yield deformed bars type 2 ($f_{yk} = 500 \text{ N/mm}^2$, Class B)
2. All mesh fabrics (WA, WB, WD) shall be high yield deformed bar. ($f_{yk} = 500 \text{ N/mm}^2$)
3. Bending of reinforcement shall be in accordance with SS EN 1992 & NA
4. Laps other than those shown in the drawings shall be made only with the approval of the Engineer. This approval may not be given in areas of high reinforcement stress and/or congestion of reinforcement.
5. All lap lengths shall comply with the requirements of SS EN 1992 & NA . Splices shall be staggered wherever possible.

Recognitions - Singapore Green Building Council (SGBC)



- **The Singapore Green Building Council (SGBC) administers the Singapore Green Building Product (SGBP) certification scheme.**
 - **The SGBP scheme is regarded as one of the key standards and benchmarks for green building products in the Singapore building and construction industry. As such, the SGBP is well recognised under the Green Mark Scheme, Singapore's national green building rating tool administered by the Building and Construction Authority (BCA).**
- CARES Sustainability Constructional Steel (SCS) scheme and Environmental Product Declaration (EPD) scheme are recognised by SGBP scheme.**

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Recognitions - Singapore Green Building Council (SGBC)

Singapore's Construction Industry Council (SGBC) operates its Singapore Green Building Product (SGBP) Certification scheme. The SGBP scheme is regarded as one of the key standards and benchmarks for green building products in the building and construction industry. As such, the SGBP is well recognised under the [Green Mark Scheme](#), Singapore's national green building rating tool administered by the Building and Construction Authority (BCA). Now, following a rigorous assessment, CARES has succeeded in its application to add its own Environmental Product Declaration (EPD) scheme to the SGBP Scheme run by the SGBC following the below framework.

Company attain UK CARES certificate

UK CARES refer applicant to SGBC for product certification

Submission for SGBP: UK CARES certificate + additional documents required for SGBP application

Applicant attain SGBP certificate

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Recognitions – Hong Kong Green Building Council (HKGBC)



Guide No.: CICGPC-AG-RBSS-07-2020
Issued: July 2020
Version: 1.3

CIC Green Product Certification Assessment Guide

Reinforcing Bar and Structural Steel



CIC GREEN
PRODUCT CERTIFICATION

Scheme Owned by Construction Industry Council (CIC)
38/F, COS Centre, 56 Tsun Yip Street, Kwun Tong, Kowloon, Hong Kong

Operated by Hong Kong Green Building Council (HKGBC)
1/F, Jockey Club Environmental Building, 77 Tat Chee Avenue, Kowloon Tong, Hong Kong
Phone: +852 3994 8818
Email: cicnpc@hkgbc.org.hk

- The purpose of CIC Green Product Certification (the “Scheme”) is to promote low carbon construction products in the market, and thus contributing to the transition of Hong Kong to a low carbon economy.
- Assessment Guide sets the product category rules (PCR) and benchmark for labelling low carbon reinforcing bars and structural steel products under the scheme and details the principles, requirements and guides for the quantification and reporting of the carbon footprint of products (CFP).

Third party verified EPDs, with a validity of 3 years, of CARES Sustainability Scheme approved manufacturers may also be used in the carbon auditing and reporting.

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Specifying CARES – UK Highways

<i>Specifications</i>	<i>Reference</i>
<p><i>Highways England- Specification for Highway Works Volume 1 Series <u>1000</u> and <u>1700</u></i></p> <p><i><u>National Building Specification - E30</u></i></p> <p><i>National Structural Concrete Specification for Building Construction (NSCS)</i></p>	<p><i>All steel reinforcement specified shall comply with <u>BS 4449</u> or <u>BS 4483</u>, shall be cut and bent in compliance with <u>BS 8666</u> and <i>shall be obtained from a firm holding a valid CARES (or fully equivalent scheme) certificate of approval.</i></i></p> <p>Processor</p> <p>Producer</p>

EXPO 2020 DUBAI



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CARES

Specify CARES Approval in project specifications Dubai Expo 2020

Suggested text - UK project specifications – BS 4449 2005 – Product quality and from a sustainable source

*All hot rolled and cold worked steel bars specified shall conform to BS 4449 (Grade B500B or B500C) and shall be cut and bent in accordance with BS 8666. The bars shall be obtained from firms holding valid CARES (or fully equivalent schemes) product conformity and **sustainability scheme certificates** of approval for the production and supply of the steel reinforcement.*

*NOTE For diameters $\leq 12\text{mm}$, Grade B500A, Grade B500B or Grade B500C conforming to BS 4449:2005 may be considered.
For diameters $> 12\text{mm}$, Grade B500B or Grade B500C conforming to BS 4449:2005 shall be specified.*

Abu Dhabi QCC Certification Scheme for Constructional Scheme and *The Estidama Pearl Rating System (PRS) by UPC*



مجلس أبوظبي للجودة والمطابقة
ABU DHABI QUALITY & CONFORMITY COUNCIL



The Environmental Trustmark

3 THE ENVIRONMENTAL TRUSTMARK

Products that achieve certification, through formal evaluation against the QCC certification scheme criteria defined in this document, will be granted a Certificate of Conformity and are licensed to bear the Abu Dhabi Trustmark in product promotion and merchandising. The Certificate of Conformity enables manufacturers, distributors and suppliers of reinforced steel products to present evidence of meeting appropriate standards for Abu Dhabi's built environment.

The Certificate of Conformity can be used to support the submission requirements of the Estidama Pearl Rating System **PBRs credit SM-10, PVRS credit SM-5 and PCRS credit SM-3**, to demonstrate the structural rebar steel products meet either the recycled content requirements or the **CARES** Sustainable Constructional Steel scheme certification.

HONG KONG

SPECIFICATION SECTION B – TECHNICAL SPECIFICATION

Green House Gases Emission Specification

4. The offered reinforcement bar / structural steel with any of the following supporting documents are preferred:
- (i) Certificates by “CIC Green Product Certification – Carbon Labelling Scheme”; or
 - (ii) Environmental Product Declaration prepared in accordance with the requirement of ISO 14025 or EN 15804 and certified by independent certification body, GHG verification body or third parties, e.g. Building Research Establishment Ltd (BRE); or
 - (iii) Certificate of Approval by UK Certification Authority for Reinforcing Steels (CARES) under Sustainable Constructional Steel (SCS) scheme.

Any questions?

Thank you

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